

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS.

AMERICAN SECTION.

BULLETIN No. 18.

MAY, 1900.

REPORT OF COMMITTEE No. 1.

The following report of the American Branch of Committee No. 1 gives the history of its labors in preparing the specifications which are printed in Bulletins Nos. 8-17, together with an outline of the plans for its future work.

The Executive Committee of the American Section at its meeting on April 7, 1900, approved the plan of asking the National Engineering Societies to take up these specifications for discussion. Arrangements have been made for such discussions by the American Society of Civil Engineers at its meeting in New York, on May 16, and by the American Society of Mechanical Engineers, at its meeting in Cincinnati, on May 15-17, 1900. Arrangements are also in progress for their consideration by the American Institute of Mining Engineers, and by other engineering societies.

The Third Annual Meeting of the American Section will be held in New York on October 25-27. Six sessions will probably be held, four of which will be devoted to the detailed discussion of these specifications.

MANSFIELD MERRIMAN,
Chairman of American Section.

RICHARD L. HUMPHREY,
Secretary of American Section.

REPORT OF COMMITTEE No. 1.

PHILADELPHIA, PA., May 1, 1900.

*To the Executive Committee of the American Section of the
International Association for Testing Materials:*

GENTLEMEN.—

We take pleasure in sending you copies of the representative specifications adopted by this Committee, with the following preliminary report showing how the work has been conducted.

Numerous meetings were held, at which the attendance was good, and we take this occasion to thank the members of the Committee for their assistance and hearty coöperation in the work.

On Thursday, March 9, 1899, a meeting for organization was held at the Franklin Institute, Philadelphia. At that time there were only five members of this Committee, and all were present, to wit:—

Carnegie Steel Co., represented by John McLeod.

H. H. Campbell.

Franklin Institute, represented by Dr. Wm. H. Wahl, Secretary.
James Christie.

Wm. R. Webster.

Mr. Wm. R. Webster was elected Chairman and Dr. Wm. H. Wahl, Secretary.

An informal discussion was had as to the manner in which the Committee could most effectively accomplish its work.

On Mr. Christie's motion, duly seconded, the following resolution was adopted.

“*Resolved*, that by virtue of the privilege accorded by the Association, the Committee shall increase its members.”

Fifteen additional members were then nominated and approved by unanimous vote. These members were afterwards confirmed by the Executive Committee.

The Franklin Institute assigned the work on this Committee to its Mining and Metallurgical Section, which is represented by the Institute's Secretary, Dr. Wm. H. Wahl, Messrs. James Christie, A. E. Outerbridge, Jr., H. F. J. Porter, Walter Wood, and Wm. R. Webster.

On June 16, 1899, a meeting was held at the same place as be-

fore. The Chairman submitted for examination several communications from foreign representatives of Committee No. I, which were accompanied by printed drafts of data collected.

A general discussion followed as to the manner in which the Committee's work could be most advantageously conducted, the problem given them being as follows:—

“To establish international rules and specifications for testing and inspecting iron and steel (proposed at Zurich Congress, 1895).”

It was decided to divide the material into the following classes, members being appointed on each sub-committee. The name of the Chairman of each is given below.

Sub-committee on Bridge and Ship Material, J. A. L. Waddell, Chairman.

Sub-committee on Building Material, James Christie, Chairman.

Sub-committee on Rails, Wm. R. Webster, Chairman.

Sub-committee on Boiler Materials, H. V. Wille, Chairman.

Sub-committee on Axles, Carnegie Steel Co., (J. McLeod), Chairman.

Sub-committee on Tires, etc., H. V. Wille, Chairman.

Sub-committee on Forgings, Bethlehem Steel Co., Chairman.

Sub-committee on Steel Castings, James Christie, Chairman.

Sub-committee on Wire, Cambria Steel Co., (Geo. Thackray), Chairman.

In order to collect the specifications in use for the different classes of material, it was decided to send out a circular letter to the leading engineers, railroad companies, and manufacturers, requesting copies of their specifications for the use of the Committee. This was done in due course and met with prompt replies, giving us *all the specifications on which our work is based*.

A meeting was held in Pittsburg on August 15, 1899, at which reports were received from the sub-committees on each class of material, and after a general discussion it was suggested that the Chairman of each sub-committee should prepare a series of questions embracing all desired information on his subject, and that lists be sent to each member of the sub-committee for comments and opinion. As such successful results had already been obtained in this manner by Mr. James Christie from his list of questions on Building Materials, the same course was pursued by

the Chairman of each sub-committee with correspondingly satisfactory results.

On November 17th and 18th the Committee met in Philadelphia at the Franklin Institute and the Engineers' Club.

The Chairmen of sub-committees read the replies they had received to the questions sent out, and each specification was discussed in detail. Mr. Christie acted as Chairman of sub-committee on Bridge Material, at the request of Mr Waddell.

A special committee, consisting of the Chairmen of the sub-committees, was appointed to facilitate the compilation of reports of the sub-committees in cases where, for any reason, they might be dilatory.

On December 5, 1899, a meeting of the special committee was held at the house of the American Society of Mechanical Engineers, New York City, at which the specifications were again taken up in detail, item by item, and discussed.

The Chairman of each sub-committee was requested to get his specifications in definite shape in order that they could be acted upon by the general committee.

On December 14th and 15th, meetings were held at the Engineers' Club of Philadelphia, when all specifications were again taken up in detail, and on motion of Mr. Christie those specifications relating to subjects not then in definite shape for presentation (but which had been settled in substance by the Committee), should be completed by the Chairman of the respective sub-committees, as soon as possible and submitted to the Chairman of the special committee for distribution among the members of Committee No. 1.

This was done and on December 18th, the specifications were sent to all the members of Committee No. 1, and their replies asked for by January 10, 1900, their attention being called to the following resolution of June 16th.

"Mr. John McLeod moved that on a proposition to adopt a specification, a copy of same shall be sent to every member, and that the votes of absent members be taken by letter ballot. Also, that every formal action by the Committee shall be confirmed by vote of a majority of the Committee, taken by letter ballot. Duly seconded and adopted."

On January 19 and 20, 1900, meetings were held at the Engi-

neers' Club of Philadelphia, at which letters were read from members, giving their views on the rough draft of the specifications that had been sent out, whereupon each specification was taken up in detail and discussed. This resulted in several changes being made. It was also found necessary to arrange for placing the work that had thus far been done, in more permanent shape for reference and discussion. The following sub-committees were appointed to do this work, as per the following schedule :—

1st. To edit all the specifications in the same general form. Sub-committee : Messrs Colby and Thackray.

2nd. To prepare for each class of material, a tabulated summary of the specifications in use, and on which the work of Committee No. 1 is based. Sub-committee : Messrs. McLeod and Carhart.

3rd. To report on methods of testing. Sub-committee : Messrs. Christie and Webster.

The Committee then adjourned to meet as soon as the sub-committees were ready to report.

On March 23rd and 24th, meetings were again held at the Engineers' Club of Philadelphia.

The specifications and tabulated work were in very satisfactory shape. The same course was followed as at the previous meeting, each specification being taken up in detail and discussed. A few minor changes were made, after which it was decided to have all the specifications and tables printed. Each specification is complete in itself and is printed separately with the table giving a summary of corresponding specifications attached. (Members were requested to send in any specifications they thought should be added to these tables).

The specifications were sent to each member of this Committee on April 10 for his views on the same to be expressed in the form of a vote by letter ballot. The only question submitted to vote was the following :

"Are these proposed specifications fair representative specifications of the best American practice and specifications in use in this country ?

"It should be further understood that these specifications will come up for general discussion at the annual meeting of this Association in October next, after which they will be referred back to this committee to make any changes that are found necessary."

The result of the vote was that each of the following specifications was adopted :

Specifications for Structural Steel for Bridges and Ships..	Bulletin No. 8.
Specifications for Structural Steel for Buildings	Bulletin No. 9.
Specifications for O. H. Boiler Plate and Rivet Steel	Bulletin No. 10.
Specifications for Rails	Bulletin No. 11.
Specifications for Splice Bars.....	Bulletin No. 12.
Specifications for Steel Axles.....	Bulletin No. 13.
Specifications for Steel Tires	Bulletin No. 14.
Specifications for Steel Forgings	Bulletin No. 15.
Specifications for Steel Castings.....	Bulletin No. 16.
Specifications for Wrought Iron	Bulletin No. 17.

The next step will be to send these specifications to all the members of the American Section and the leading engineers of this country, for the purpose of having a full discussion of the same at the Autumn meeting of this Association. It is of the utmost importance that the views of all parties be secured at that time, as it will be the final discussion, and time enough will be allowed for the discussion of each subject.

After the Autumn meeting, Committee No. 1 will consider the points raised in discussions, and make changes if they should be found necessary. Then the specifications may be sent to all members of the American Section for approval by letter ballot.

In following the course outlined above, a full opportunity will be given every member to discuss each specification in writing and at the meeting, before they come up for the final action. This course should enable the Committee to agree upon a body of representative specifications that will be fair both to the manufacturer and the consumer, and that will come into general use in this country.

At the meeting of January 19, 1900, a letter from Mr. A. Rieppel, Chairman of the International Committee No. 1, was read, with printed forms for recording specifications. The Chairman stated that he had sent, in reply to this, a letter stating that the American Branch of Committee No. 1 was covering the same ground in detail, and would soon be in a position to send him a preliminary report of its work, after consulting which he was requested to advise this Committee whether he still desired to have his blanks filled out.

In this report we have endeavored to give a concise statement of the manner of carrying on the work of this Committee, and to

show that all its work is based on the existing specifications and best practice in use to-day ; also, that these proposed specifications are offered as the best means for the introduction of International Specifications and Methods of Testing. We feel confident that if the other countries will follow the same general course and prepare similar specifications, the final work will be very much simplified, and International Specifications for general use can be arrived at.

There is no doubt that this will be done, especially as Mr. Riepel in his instructions states :—

“The materials of iron and steel are to be treated in the following succession :

1. Materials for superconstructions of railways.
2. Materials for locomotives and carriages.
3. Materials for the construction of ships.
4. Boiler plates and sheets.
5. Rolled and cast iron tubes.”

This is practically the same division as that adopted by our Committee, except in the matter of rolled and cast iron pipe, which we will take up later. In all other cases, we have gone into the matters a little more in detail.

The By-laws and List of Members of the International Association for Testing Materials (June 1899) show that 13 countries are represented on Committee No. 1, which indicates the importance of this work.

It has been the endeavor of this Committee (which has been increased from time to time, and now numbers 34 members, a complete list of which is sent herewith), to give a full synopsis of the specifications in use for each class of material, and to put matters in the most convenient shape for discussion, and we hope that our engineers will take these specifications up in the spirit in which they are offered.

What we really want to know is, are these fair representatives of specifications in use in this country, and the best American practice? If not, then what modifications are required, to make them so?

Respectfully submitted,

For the American Branch of International Committee No. 1,

WM. R. WEBSTER, Chairman.

WM. H. WAHL, Secretary.

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Cambria Steel Company, Chas. S. Price, General Manager; Geo. E. Thackray, Engineer, Johnstown, Pa.

Carnegie Steel Company, Ltd., John McLeod, Engineer of Tests, Pittsburg, Pa.

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Bethlehem Steel Company, A. L. Colby, Metallurgical Engineer, South Bethlehem, Pa.; Maunsel White, Engineer of Tests.

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